

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003809**Date Inspected:** 03-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Hu Wei Qing and Liu Hua Jie			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG and SAS Tower Fabrication	

**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

This QA Inspector was tasked to inspect one steel plate for the 142nd batch, and one plate for the 144th batch that are ready to have check samples taken for testing. The QA Inspector assigned the following lot numbers to two check sample plates. All samples taken were having dimension of 460 mm long and 355 mm wide with the long axis perpendicular to the direction of roll. Direction of rolling, and QA Inspector's lot number were placed on check samples.

The following are a list for the 142nd Batch.

Sample #	Date	Heat #	Plate Type/Grade	Thickness	Lot Number
----------	------	--------	------------------	-----------	------------

410	9.03.2008	7200840N	A709M-345F2-Z	40mm	B103-09-08
-----	-----------	----------	---------------	------	------------

The following are a list for the 144th Batch.

Sample #	Date	Heat #	Plate Type/Grade	Thickness	Lot Number
----------	------	--------	------------------	-----------	------------

411	9.03.2008	7200353N	A709M-345F2-X	16mm	B103-10-08
-----	-----------	----------	---------------	------	------------

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

### Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Hong Shuili ID Number 044815, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-Tc-U4b-F, to weld fill pass on flange splice butt joint FB068-001-016 . The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of floor beam sub-assembly FB009-019-026. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

This QA also observed ZPMC randomly observed ZPMC welder Wu Hai Jun ID #201087 using the SMAW process in the 1G (Flat Groove) position with ZPMC WPS-B-P-2211-B-U2-FCM to weld root pass on plate splice butt joint (18mm) FB027-005-080. Same ZPMC/CWI was observed monitoring the weld parameters.

### Bay 8: Tower Diaphragm

SMAW(2F) tack welding/fit-up of fillet weld connection on tower diaphragm plate to diaphragm flange NSD1-SA248-8 and WSD1-SA309-2 using THJ506Fe-1 was observed following procedure WPS-B-T-4112-4.

This QA observed three ZPMC welders, ID #048714, ID #045240 and ID #048433 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand K-71TSR, semi automatic with ZPMC WPS WPS-B-T-4132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange NSD1-SA334A/B-8. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring weld parameters.

This QA Inspector randomly observed ZPMC welder Wang Cai Li ID #045203 utilizing the FCAW Process in the 1G (Flat Groove) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic with ZPMC WPS WPS-B-T-2231-Tc-U4b-F, to weld root pass on flange splice butt joint FB057-001-006. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

### Summary of Conversations:

No significant conversation occurred today.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

---